



NARRATIVE



FY 14 CHIEF OF NAVAL OPERATIONS

ENVIRONMENTAL AWARDS COMPETITION

AWARD CATEGORY: SUSTAINABILITY, INDIVIDUAL OR TEAM

Sustainable Solid Waste Program Team

Introduction

Navy Region Southwest (NRSW) overlays an extensive Environmental Sustainability (ES) program across six states and ten naval installations supporting 64 ships, 556 aircraft and associated air and land ranges, 13,000 housing units, and 480 tenant commands. NRSW bases are primarily in California (9) and Nevada (1), with special areas and activities also in Arizona, Colorado, Utah, and New Mexico. Nearly 10,000 personnel conduct operations on the ten installations and 179 special areas with a plant replacement value of more than \$32 billion and include nearly 12,000 buildings on 5750 square kilometers (km²) of land where 47 threatened or endangered species are thriving.

Naval Facilities Engineering Command Southwest (NAVFAC SW) functions as the Facilities Engineer for NRSW to design, construct, and operate capital improvements, real property assets, public works, and environmental projects and services. To accomplish these projects and services, engineering and construction businesses, both large and small, including disadvantaged firms, execute more than \$1.5 billion of work.

NRSW Environmental Sustainability (ES) activities include solid waste diversion, reuse, and recycling; construction and demolition waste reduction; Leadership in Energy and Environmental Design (LEED) building construction; electrical energy and water conservation; renewable energy generation; and Greenhouse Gas emission reduction. The Sustainable Solid Waste, Capital Improvements, Public Works, and Environmental programs establish objectives, manage resources, execute projects, and maintain operations to achieve Department of Defense sustainability goals while being good stewards of natural and socioeconomic resources of the local communities. NRSW works with public, private, and non-governmental entities in implementing ES programs.

ES programs weave a rich tapestry of projects and activities that contribute substantially to protection and sustainability of air, water, and land resources.

- Diversion and recycling of municipal solid waste (MSW) and construction and demolition debris (C&D) from afloat and ashore operations reduce disposal requirements and need for new materials

- Electrical energy and water conservation programs monitor and reduce demands for fossil fuel and fresh water resources
- Renewable energy projects provide sustainable energy sources that reduce Greenhouse Gas (GHG) emissions
- Other efforts to reduce Greenhouse Gases include increased employee telework, support for mass transit and car pools through transportation incentives, and controls on permitted air emission sources.

Sustainable Solid Waste Program

The Navy Region Southwest (NRSW) Sustainable Solid Waste program has evolved from a standard integrated solid waste management program to a sustainable solid resource and management program. This program is a best business practice throughout the Navy's Southwest Region for all activities that generate non-hazardous solid waste. The impetus comes directly from the goals of EO 13514 by using the Resource Conservation, Recovery Act (RCRA) definition of non-hazardous solid waste and DOD's solid waste hierarchy of: Reduce, Reuse, Recycle, and Dispose only as a last resort. This provides our vision of developing and implementing sustainable solid waste management in order to promote a culture of resourcefulness versus wastefulness.



Using the RCRA definition of solid waste, the Sustainable Solid Waste (SSW) program categorizes waste into five manageable divisions: (1) the combined management of refuse and recycling (Integrated Solid Waste); (2) construction and demolition (C&D) debris management; (3) military industrial waste (MIW); (4) disaster debris management (DDM); and (5) Office Property Reuse (office furniture, office supplies, décor, etc.).

Although it encompasses traditional recycling, the philosophy of sustainable solid waste moves away from the concept of just managing the traditional recycling streams of paper, plastic, cardboard, and metals. It is a holistic approach to addressing solid resource management versus landfill disposal. This philosophy incorporates the concepts of sustainability by using Environmental Management System (EMS) to provide processes and to develop more environmentally and economically sustainable practices.



As an example of the results of sustainable resource management practices and processes is its construction and demolition (C&D) debris management program. This partnership has been developed between the Navy, local governments, such as the City of San Diego, as well as numerous construction contractors. When Navy projects of construction, demolition, or renovation are contracted, contract specifications are streamlined to include sustainability practices. These specifications provide not only the Navy and Federal Government with best business practices, but also yields cost savings to the contractor by delivering C&D debris to local C&D recyclers. Additionally, it also saves the Navy and Federal government funds from the payment of landfill costs in the form of transportation and tipping fees. As part of the contract requirements, contractors are required to provide monthly waste diversion reporting to the SSW organization.



It is widely known that there are unique circumstances with organizations and agencies at different locations in the US. With commonality throughout much of the federal government, broadening the view towards sustainable solid waste management achieves the rule and spirit of EO 13514 by promoting a culture of resourcefulness versus wastefulness.

In particular, the use of our business management tool, which uses the specific elements of spatial data and mapping (Google Earth and Virtual Earth) and browser-based collaboration and document-management (MS Sharepoint), is a model. The result is an informational and pictorial rich environment designed to provide a management-centric tool that is both accessible and flexible.

Food Waste Composting: Partnerships were achieved with Navy galleys to initiate a Food Waste Composting Program (FWCP). The SSW Programs and Navy galley's worked with the City of San Diego's Environmental Department to be in full compliance and meet the city's requirements to be eligible to participate in the City's FWCP. The FWCP consists of segregating all the food waste from all other solid waste at the source of generation (kitchen). The Food Waste then gets transported on a weekly basis to the Miramar Greenery where is processed into rich compost product that can be used as an amendment to improve soil texture, and increase both nutrients and water holding capacity. The FWCP at the Naval Medical Center San Diego (NMCSD) Galley officially started on December 10, 2013. The NMCSD Galley is the first Galley in the NRSW to participate in a FWCP and their food waste could represent around 30% to 40% of their waste stream which equals 190,000 kg per year.



This waste will be diverted from the landfill through the City of San Diego's Composting Program. This Sustainable practice can show the San Diego military forces', commitment to the region's environment.

The SSW Program has consistently included elements of non-hazardous solid waste reuse and recycling, as well as diversion of construction and demolition debris and wastes through projects such as LEED construction. Newer innovations to this program have included diversion of homeport Navy ship recycling and recycling through deconstruction of rail cars. The waste reduction and recycling elements of the Sustainable Solid Waste program have reduced the demand on local landfill resources and has provided strong support for recycling and green products industries associated with San Diego County.



Economic Impacts

NRSW markets and sells nearly 25,000 tons of recyclable material annually to California-based recycling firms. In addition to the 60 employees working in the installation solid waste programs, hundreds of jobs are created from the need to transport and process the material sold within the state. Emerging recycling markets in California allows NRSW to continually add new commodities to the list of materials captured, processed, and sold. California's aggressive recycling goals coupled with industry leaders have fostered an environment that allows NRSW to be recognized as a leader within DoD for management of solid waste.

Sustainable Interior Showroom

Nearly 10,000 personnel work on NRSW installations with a plant replacement value of \$32 billion and nearly 12,000 structures as well as 13,000 housing units. These complex facilities and operations involve huge amounts of furniture, fixtures and equipment (FF&E) for new and renovated buildings for offices, housing, operations and command centers, and range complexes. In FY 2010, \$125 million was spent on FF&E for military construction (MCON) alone. Other federal agencies have similar needs for FF&E for new and renovated buildings.

Recognizing the substantial continuing investment in FF&E, the need to divert wastes from landfill disposal, and the benefits to the Sustainable Solid Waste program and the local recycling economy through utilization of recycled office products, NRSW created a Sustainable Interior Showroom (SIS) to showcase sustainable office furniture and interior office finishes. The SIS consists of a demonstration area and product library displaying sustainable choices for products commonly required for building interiors. It was created to support NRSW's goal to achieve zero net waste by 2035. The showroom enables visitors to examine and test sustainable products as well as gather information to assist in

streamlining their purchasing processes while satisfying multiple manufacturer's bids and "green" procurement requirements. The performance specifications can be incorporated in the FF&E procurement guidelines for other government agencies, such as the Air Force, GSA, Army, and VA. The Navy was the first agency to incorporate Executive Orders 13514 and 13423 statutory requirements regarding sustainable procurement in furniture solicitations.

Moreover, NRSW Green Purchasing policies require acquisition of recycled content products for office furniture and office space products, which help to extend the markets for recycled products and to support related jobs and economics. NRSW is both a generator and supplier of recycled materials, and a consumer of recycled and sustainable office products, thus providing a broad spectrum of integrated support to waste reduction. Besides the SIS to promote the selection of sustainable FF&E, NRSW conducts an extensive program to reuse furniture resulting from renovations and replacements. The used furniture is made available at no cost to authorized organizations. Reuse and recycling of office furniture and products is an important component of NRSW's diversion of materials from landfills.

The Sustainable Interiors Showroom (SIS) showcases furniture, partitions, flooring, and fabrics from more than 70 manufacturers made with recycled or "green" materials to demonstrate that recycled products are also beautiful and functional. Army, GSA, Air Force, EPA, and Coast Guard have toured the showroom and applied its lessons and tools to their agencies. The SIS enables visitors to examine and test sustainable products as well as gather information to assist in purchasing. Performance specifications, including third party validation requirements, were developed for the largest commodities of FF&E and made available to other government agencies to incorporate in their procurement guidelines.



Moreover, reuse of FF&E, in partnership with Defense Logistics Agency's Disposition Services, allows military commands and other federal organizations to achieve an annual average cost savings of more than \$1 million. Furniture reuse and use of sustainable FF&E were components of NRSW's sustainability awards.

Environmental Justice

NRSW affects communities throughout California in countless ways and strives to engage productively with community leaders and stakeholders of groups whose culture, values, health, or economic status is affected. Capital improvement projects, major changes in operations and training ranges, measures to protect and preserve natural and cultural resources, land use encroachment, and use of community services are but a few examples of the topics of NRSW interaction with California communities. The

guiding principle is engagement through open, constructive dialogue to resolve issues by emphasizing shared interests.

The aggressive diversion of wastes from landfill disposal into the material reuse and recycling system extends the life of existing landfills affected by NRSW installations. This, in turn, forestalls the need to site new landfills or associated facilities in areas that could affect socioeconomically disadvantaged neighborhoods or populations with disproportionately high multigenerational exposures to pollution sources. Moreover, NRSW policies for purchasing of recycled office furniture and products and construction of LEED certified buildings with high levels of recycled components provides markets for the recycled products industry in California. This, in turn, provides in many cases jobs for workers at the lower end of the socioeconomic spectrum that diffuses economically through disadvantaged neighborhoods.

Award-Winning Program

California Governor's Environmental and Economic Leadership Award: Navy Region Southwest received California's highest environmental honor in 2013 for its Sustainable Solid Waste Program and associated Waste Reduction efforts. The Governor's Environmental and Economic Leadership Award is California's most prestigious environmental honor, given only to Californians who exemplify exceptional leadership for protecting and enhancing the environment while at the same time promoting economic growth. Receiving the award in the Waste Reduction category, Navy Region Southwest was one of 17 public- and private-sector recipients of the award given in twelve categories. The award recognized our responsibility to create a sustainable environment while promoting a vibrant economy.



Recycler of the Year Award for Nine Consecutive Years: The SSW Program received the Recycler of the Year from the City of San Diego in 2014 for the ninth consecutive year. The SSW Program puts a high priority on partnering with the City of San Diego Environmental Services Department (ESD). The City's ESD and the Navy's SSW Program have a long history of effort and cooperation and have established a partnership to enhance solid waste reduction and increase recycling throughout the Navy in the San Diego area. The Navy's diversion efforts contribute greatly to the City reaching and maintaining its AB 939 solid waste diversion goals. The SSW Program frequently meets with the City's ESD to review new policies/regulations, obtain ideas to improve solid waste diversion, to develop the most creative and comprehensive solutions to our Navy's solid waste related issues.

American Academy of Environmental Engineers and Scientists (AAEES) Environmental Sustainability Honor Award: NRSW received an Honor Award in the Environmental Sustainability category from the American Academy of Environmental Engineers and Scientists in the Excellence in Environmental Engineering and Science international competition for 2014. The award included recognition of accomplishments in minimizing solid waste and pollutant generation by reaching the diversion goal of

50% mandated by EO 13514 in the Sustainable Solid Waste Program (SSWP) and the goals of the Department of Defense Strategic Sustainability Performance Plan.

Earth Day Sustainable Program Award: NRSW's SSW Program was a key element in NRSW receiving the Earth Day 2014 Sustainable Program Award by the Industrial Environmental Association and San Diego County.



Sustainability, Industrial Installation, Award - Naval Weapons Station Seal Beach: Naval Weapons Station Seal Beach, a NRSW component command, received a Secretary of Defense Sustainability Award in 2013. Waste reduction activities directed by the SSW Program were key elements of this award.

Sustainability, Industrial Installation, Award - Naval Base Ventura County: Naval Base Ventura County, a NRSW component command, received a Chief of Naval Operations Sustainability Award in 2013. Waste reduction activities directed by the SSW Program were key elements of this award.

Top Management Support

The NRSW Sustainable Solid Waste and Environmental Sustainability Programs have top management support.

We are very proud of the efforts we have made to implement sustainability programs across our region. Our programs protect the key energy, air, water, and land resources essential to Navy training and operations in a world where competition for resources is increasingly fierce. The Navy takes great pride in conserving the resources of the communities that host our installations and forces.

Rear Admiral Patrick J. Lorge, Commander, Navy Region Southwest

